

AMENDMENTS TO THE CLAIMS:

Please amend Claims 1, 3, and 5, and add Claims 20 and 21 as follows:

1. (Currently Amended) An image processing apparatus for receiving and processing a plurality of images each composed of a plurality of image data; moving image signals, and outputting one moving image signal, said image processing apparatus comprising:

a first image input unit which inputs a first moving image signal;

a second image input unit which inputs a second moving image signal;

a band segmentation unit which segments a first frame image in the first moving an image signal into a plurality of different frequency band components and which segments a second frame image in the second moving image signal into a plurality of different frequency band components; and

an image composition unit which composites; ~~after said band segmentation unit segments first and second images, the first frame image and the second frame images image, each of the first frame image and the second frame image having been segmented by said band segmentation unit,~~ by replacing some or all image data in common frequency band components between the first frame image and the second frame images image, and which outputs generates a third moving image signal composed of ~~composed image; frame images,~~

wherein, when the output of said image processing apparatus is switched from the first moving image signal to the second moving image signal, said image composition unit

outputs the composited image during a transition from the first image to the second image third moving image signal in an interval of the first moving image signal and the second moving image signal.

2. (Withdrawn) An image processing apparatus for receiving and processing a plurality of images each composed of a plurality of image data, comprising:

an image composition unit which receives first and second images, each of which have been segmented into frequency band components, and gradually composites the first and second images by replacing some or all image data in a predetermined frequency band component among the first and second images while changing the predetermined frequency band component to be processed along with an elapse of time; and

an image output unit which outputs a composite image composited by said image composition unit as a moving image upon changing the predetermined frequency band component processed by said image composition unit.

3. (Currently Amended) An image processing method for receiving and processing a plurality of images ~~each composed of a plurality of image data;~~ moving image signals, and outputting one moving image signal, said image processing method comprising:

a first image input step of inputting a first moving image signal;

a second image input step of inputting a second moving image signal;

a band segmentation step of segmenting a first frame image in the first moving an

image signal into a plurality of different frequency band components and of segmenting a second frame image in the second moving image signal into a plurality of different frequency band components; and

an image composition step of compositing, after first and second images are segmented in the band segmentation step, the first frame image and the second frame images image, each of the first frame image and the second frame image having been segmented by said band segmentation step, by replacing some or all image data in common frequency band components between the first frame image and the second frame images image, and of outputting generating a third moving image signal composed of composited image; frame images,

wherein, when output is switched from the first moving image signal to the second moving image signal, the said image composition step outputs the composited image during a transition from the first image to the second image third moving image signal in an interval of the first moving image signal and the second moving image signal.

4. (Withdrawn) An image processing method for receiving and processing a plurality of images each composed of a plurality of image data, comprising:

an image composition step of receiving first and second images, each of which have been segmented into frequency band components, and gradually compositing the first and second images by replacing some or all image data in a predetermined frequency band component among the first and second images while changing the predetermined frequency band component to be processed along with an elapse of time; and

an image output step of outputting the composite image composited in the image composition step as a moving image upon changing the predetermined frequency band component processed in the image composition.

5. (Currently Amended) A computer-readable medium storing a program code for causing a computer to execute:

a first image input step of inputting a first moving image signal;

a second image input step of inputting a second moving image signal;

a band segmentation step of segmenting a first frame image in the first moving image signal into a plurality of different frequency band components and of segmenting a second frame image in the second moving image signal into a plurality of different frequency band components; and

an image composition step of compositing, ~~after first and second images are segmented in the band segmentation step;~~ the first frame image and the second frame images image, each of the first frame image and the second frame image having been segmented by said band segmentation step, by replacing some or all image data in common frequency band components between the first frame image and the second frame images image, and of outputting generating a third moving image signal composed of composited image; frame images,

wherein, when output is switched from the first moving image signal to the second moving image signal, the said image composition step outputs the composited image during a transition from the first image to the second image third moving image signal in an interval of the

first moving image signal and the second moving image signal.

6. (Withdrawn) A computer-readable medium storing a program code for causing a computer to execute:

an image composition step of receiving first and second images, each of which have been segmented into frequency band components, and gradually compositing the first and second images by replacing some or all image data in a predetermined frequency band component among the first and second images while changing the predetermined frequency band component to be processed along with an elapse of time; and

an image output step of outputting the composite image composited in the image composition step as a moving image upon changing the predetermined frequency band component processed in the image composition step.

7. (Withdrawn) An image processing apparatus for compositing image data, which are recorded while being segmented into a plurality of frequency band components, for respective bands, and outputting composite image data, comprising:

data acquisition means for acquiring the image data;

playback output means for compositing the acquired image data for respective bands, and outputting composite image data; and

control means for controlling said data acquisition means and said playback output means in accordance with a playback condition,

wherein when one image is to be composited and played back on the basis of image data which form m (m is an integer not less than 2) successive images,

said control means controls said data acquisition means to acquire data of some frequency band components of the plurality of frequency band components from each of image data which form $(m - 1)$ images, and to acquire data of at least some frequency band components of the plurality of frequency band components from image data which form the remaining one image, and

said control means controls said playback output means to composite the one image for respective bands based on the acquired data, and to output the composite image.

8. (Withdrawn) The apparatus according to claim 7, wherein when one image is to be composited and played back on the basis of image data which form m (m is an integer not less than 2) successive images,

said control means controls said data acquisition means to acquire data of an identical frequency band component from each of image data which form $(m - 1)$ images, and to acquire data of all frequency band components of the plurality of frequency band components from image data which form the remaining one image.

9. (Withdrawn) The apparatus according to claim 8, wherein the identical frequency band component is a lowest frequency band component.

10. (Withdrawn) The apparatus according to claim 8, wherein the identical frequency band component is a plurality of frequency band components including a lowest frequency band component.

11. (Withdrawn) The apparatus according to claim 8, wherein said playback output means composites the one image for respective bands after said playback output means composites the respective data of the identical frequency band components and data of a frequency band component equal to the identical frequency band component contained in the image data of the remaining one image by making a predetermined calculation, and outputs the image.

12. (Withdrawn) The apparatus according to claim 11, wherein the predetermined calculation is a weighted mean calculation.

13. (Withdrawn) The apparatus according to claim 7, wherein the data of the frequency band components acquired from each of the image data which form the $(m - 1)$ images, and the data of the frequency band components acquired from the image data that form the remaining one image are data of all different frequency band components, and a combination of the acquired data of the frequency band components corresponds to data of all of the plurality of frequency band components.

14. (Withdrawn) The apparatus according to claim 7, wherein the image data are segmented into the plurality of frequency band components by two-dimensional discrete wavelet transformation processes of a plurality of levels.

15. (Withdrawn) The apparatus according to claim 7, further comprising:
means for sensing an image; and
transformation means for segmenting the sensed image into a plurality of frequency components, and recording the plurality of frequency components.

16. (Withdrawn) The apparatus according to claim 7, wherein when the playback condition indicates playback at a speed higher than a normal playback speed, said control means controls said data acquisition means and said playback output means to composite one image from image data which form the m (m is an integer not less than 2) successive images for respective bands, and to play back the image.

17. (Withdrawn) The apparatus according to claim 16, wherein the playback condition is input by operation means that can be operated by a user.

18. (Withdrawn) An image processing method for compositing image data, which are recorded while being segmented into a plurality of frequency band components, for respective bands, and outputting composite image data, comprising:

a data acquisition step of acquiring the image data;

a playback output step of compositing the acquired image data for respective bands, and outputting composite image data; and

a control step of controlling the data acquisition step and the playback output step in accordance with a playback condition,

wherein when one image is to be composited and played back on the basis of image data which form m (m is an integer not less than 2) successive images,

the control step includes:

a step of controlling the data acquisition step to acquire data of some frequency band components of the plurality of frequency band components from each of image data which form $(m - 1)$ images, and to acquire data of at least some frequency band components of the plurality of frequency band components from image data which form the remaining one image, and

a step of controlling the playback output step to composite the one image for respective bands based on the acquired data, and to output the composite image.

19. (Withdrawn) A computer-readable medium storing a program code for causing a computer to execute:

a data acquisition step of acquiring image data which is recorded while being segmented into a plurality of frequency band components;

a playback output step of compositing the acquired image data for respective bands, and outputting composite image data; and

a control step of controlling the data acquisition step and the playback output step in accordance with a playback condition,

wherein when one image is to be composited and played back on the basis of image data which form m (m is an integer not less than 2) successive images,

the control step includes:

a step of controlling the data acquisition step to acquire data of some frequency band components of the plurality of frequency band components from each of image data which form $(m - 1)$ images, and to acquire data of at least some frequency band components of the plurality of frequency band components from image data which form the remaining one image, and

a step of controlling the playback output step to composite the one image for respective bands based on the acquired data, and to output the composite image.

20. (New) The image processing apparatus according to claim 1, wherein said image composition unit gradually replaces image data in frequency band components of third frame images in the third moving image signal, from image data in frequency band components of the first frame image to image data in frequency band components of the second frame image.

21. (New) The image processing apparatus according to claim 1, wherein said image composition unit is a unit that applies a visual effect to images, and

wherein third frame images in the third moving image signal represent a cross fade effect between the first frame image and the second frame image.